

Caller ID Authentication Exemption Certification Pursuant to 47 C.F.R. § 64.6306

WC Docket No. 20-68

Date Filed: December 1, 2020

Name of company covered by this certification: Comcast Cable Communications, LLC,
including its subsidiaries providing retail
voice services in the United States

Name of Signatory: John DePietro

Title of Signatory: Vice President, Product Development Engineering

I, John DePietro, certify that I am an officer of Comcast Cable Communications, LLC (together with its subsidiaries, "Comcast" or the "Company"), and acting as an agent of the Company, that I have personal knowledge that the Company has satisfied the requirements for an exemption from the Commission's caller ID authentication requirements for providers that can demonstrate substantial early progress in implementing caller ID authentication technology. *See* 47 C.F.R. § 64.6306.

Attached to this certification is an accompanying statement explaining how the Company's actions are sufficient to ensure that, as of December 1, 2020, the Company has satisfied the requirements set forth in Section 64.6306 of the Commission's rules.

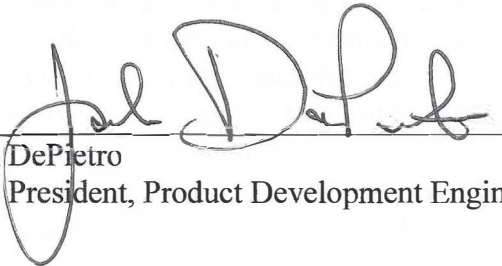
The Company represents and warrants that the above certification is consistent with 47 C.F.R. § 1.17, which requires truthful and accurate statements to the Commission. The Company also acknowledges that false statements and misrepresentations to the Commission are punishable under Title 18 of the U.S. Code and may subject the Company to enforcement action.

I declare under penalty of perjury that the foregoing is true and correct to the best of my knowledge.

Signed: _____

John DePietro

Vice President, Product Development Engineering

A handwritten signature in black ink, appearing to read "John DePietro", is written over a horizontal line. The signature is stylized with large, looped letters.

Statement Regarding Compliance With Caller ID Authentication Rules

Comcast hereby demonstrates its satisfaction of the criteria for an exemption from the Commission's caller ID authentication requirements for providers that can demonstrate substantial early progress in implementing caller ID authentication technology. *See* 47 C.F.R. § 64.6306.

Comcast has played a leading role in developing and deploying advanced robocall mitigation tools. Comcast's Chris Wendt co-chairs the work group of the Alliance for Telecommunications Industry Solutions ("ATIS") on the SHAKEN framework for caller ID authentication, is a primary author of the STIR specifications adopted by the Internet Engineering Task Force, and co-chaired the Authentication Work Group of the Robocall Strike Force. Comcast's Beth Choroser co-chaired the North American Numbering Council's Call Authentication Trust Anchor Working Group, which has submitted reports to the FCC on the governance framework and timely deployment of the STIR/SHAKEN standard, as well as on best practices for implementing the standard.

In early 2019, Comcast finished implementing the capability to verify calls that contain a STIR/SHAKEN-compliant signature for the company's entire residential subscriber base—enabling Comcast to sign originating and verify terminating calls between its residential subscribers, and paving the way for the Company to begin interoperating with other voice providers that have implemented such capabilities. Since then, Comcast has continued to make the implementation of STIR/SHAKEN a major priority, and these efforts are delivering substantial benefits to customers.

Comcast qualifies for an exemption from the requirements of 47 C.F.R. § 64.6301 because, on or before December 1, 2020, for those portions of its network served by technology that allows for the transmission of SIP calls, Comcast has met the following criteria as set forth in 47 C.F.R. § 64.6306(a)(1)-(4):

- (1) Has adopted the STIR/SHAKEN authentication framework for calls on the Internet Protocol networks of the voice service provider, by completing the network preparations necessary to deploy the STIR/SHAKEN protocols on its network including but not limited to participation in test beds and lab testing, or completion of commensurate network adjustments to enable the authentication and validation of calls on its network consistent with the STIR/SHAKEN framework**

Comcast was among the first voice service providers to adopt the STIR/SHAKEN authentication framework, and has completed a wide range of network preparations necessary to deploy the STIR/SHAKEN protocol on its network. On multiple occasions in the past year, Comcast has provided updates to the Commission on the substantial progress the company had already made to implement this protocol.¹ As detailed in those letters, by early 2019, Comcast

¹ *See* Letter from Beth Choroser, Vice President, Regulatory Affairs, Comcast Corporation, to Marlene H. Dortch, Secretary, FCC, WC Docket No. 17-97, CG Docket No. 17-59 (filed Jan. 31, 2020) ("January 2020 Letter"); *see* Letter from Beth Choroser, Vice President, Regulatory Affairs, Comcast Corporation, to Marlene H. Dortch, Secretary, FCC, WC Docket No. 20-323 (filed Oct. 16, 2020).

had already finished implementing the capability to sign and verify calls that contain a STIR/SHAKEN-compliant signature for the company's entire residential subscriber base.² Comcast then began interoperating with multiple other voice providers—including an industry-first, real-world exchange of authenticated calls with AT&T in March 2019, followed by the commencement of exchanging authenticated calls with T-Mobile in April 2019, as well as the first fully authenticated cross-border call (between Chairman Pai and his Canadian counterpart) in December 2019.³ Comcast also announced that, as of January 2020, virtually all calls originating from one Comcast residential subscriber and terminating with another Comcast residential subscriber are fully authenticated through the STIR/SHAKEN protocol, and that virtually all calls originating from a Comcast residential subscriber and bound for customers of other voice providers are signed with a STIR/SHAKEN-compliant header when the call is initiated. In a February 2020 letter, Comcast further reported that it had expanded deployment of STIR/SHAKEN functionality beyond its residential voice customers to include its small- and medium-sized business voice customers as well.⁴

Comcast has continued to make the implementation of STIR/SHAKEN a priority, and has publicly announced the exchange of authenticated calls with a growing number of providers. For example, in February 2020, Comcast and Sprint announced (prior to Sprint's consummation of its merger with T-Mobile) that the two companies had begun exchanging traffic using the STIR/SHAKEN protocol, having completed successful lab-to-lab testing in late 2019.⁵ In August 2020, Comcast and Bandwidth announced a similar partnership to deploy the STIR/SHAKEN framework for calls passing between the two networks.⁶ Comcast also is exchanging STIR/SHAKEN authenticated calls with Verizon Wireless, and has continued to work with other voice providers on implementing this capability.⁷ Moreover, regardless of whether or not a terminating provider has implemented STIR/SHAKEN, Comcast is taking active measures to allow its identity headers to flow through to the vast majority of providers with which it has a direct peering arrangement for the exchange of voice traffic in Internet Protocol ("IP"), with the exception of a few providers that have specifically asked Comcast not

² January 2020 Letter at 1.

³ *Id.* at 1-2; *see also id.* at 3 (noting in addition that, in November 2019, Comcast, T-Mobile, and Inteliquent had completed the first end-to-end STIR/SHAKEN call across three networks).

⁴ *See* Letter from Tony Werner, President, Technology, Product, Xperience, Comcast Cable, to G. Patrick Webre, Bureau Chief, Consumer and Governmental Affairs Bureau, FCC, WC Docket No. 17-97, at 3 (filed Feb. 28, 2020).

⁵ *See* Comcast Corp., Press Release, "Comcast and Sprint Start Rollout of Anti-Robocall Technology," Feb. 4, 2020, *available at* <https://corporate.comcast.com/press/releases/sprint-comcast-start-rollout-of-anti-robocall-technology>.

⁶ *See* Bandwidth Inc., Blog, "Bandwidth and Comcast partner on STIR/SHAKEN to reduce robocalling," Aug. 5, 2020, *available at* <https://www.bandwidth.com/blog/bandwidth-and-comcast-partner-on-stirshaken-to-reduce-robocalling/>.

⁷ Xfinity Mobile's status as a mobile virtual network operator means that it is reliant on the underlying provider's own implementation of network-level functionalities like STIR/SHAKEN. As that provider has begun to implement STIR/SHAKEN in its network, Comcast customers have benefited from that implementation. Comcast will continue to work with the underlying provider on encouraging implementation of this call authentication protocol for mobile customers.

to do so at this time. Comcast currently receives signed calls from 12 voice providers for calls terminating with Comcast subscribers.⁸

Comcast has been an early and sustained participant in developing the STIR/SHAKEN ecosystem. Comcast has been a leading participant in the ATIS Robocalling Testbed hosted by the Neustar Trust Lab, and six test sessions were conducted between October 2017 and January 2018. Comcast has made numerous network adjustments to enable STIR/SHAKEN call authentication and validation, including configuring the Company's IP Multimedia Core Network Subsystem ("IMS") cores to enable triggers to invoke the Secure Telephone Identity – Authentication Service ("STI-AS") for calls originating from Comcast customers and the Secure Telephone Identity – Verification Service ("STI-VS") for calls terminating to Comcast customers.

(2) Has agreed voluntarily to participate with other voice service providers in the STIR/SHAKEN authentication framework, as demonstrated by completing formal registration (including payment) and testing with the STI Policy Administrator

Comcast completed formal registration with the STI Policy Administrator ("STI-PA") on December 20, 2019. Comcast also submitted its completed Certificate Policy Requirements Checklist to the STI-PA on December 20, 2019, and completed testing with the STI-PA in December 2019. In addition, Comcast has made annual payments to the STI-PA since 2018.

(3) Has begun to implement the STIR/SHAKEN authentication framework by completing the necessary network upgrades to at least one network element—e.g., a single switch or session border controller—to enable the authentication and verification of caller identification information consistent with the STIR/SHAKEN standards

Comcast has begun to implement the STIR/SHAKEN authentication framework through upgrades to numerous network elements. For example, Comcast has completed upgrades to core elements of the IMS providing the Serving – Call Session Control Function ("S-CSCF"), and as well as the entire suite of servers that provide STIR/SHAKEN functionality. These servers include the STI-AS, STI-VS, Secure Telephone Identity – Secure Key Store ("STI-SKS"), Secure Telephone Identity – Certificate Repository ("STI-CR"), and Service Provider Key Management Server ("SP-KMS"). These network elements were initially upgraded in late 2018, and Comcast has continued to update these systems over time. Notably, with Comcast's switchover to a new SP-KMS in November 2020, Comcast is now fully compliant with the Governance Model with regard to certificate management.

(4) Will be capable of fully implementing the STIR/SHAKEN authentication framework not later than June 30, 2021, which it may only determine if it reasonably foresees that it will have completed all necessary network upgrades to its network infrastructure to enable the authentication and verification of caller

⁸ Comcast also has registered with the STIR/SHAKEN Policy Administrator and has been approved as a STIR/SHAKEN Certification Authority.

identification information for all SIP calls exchanged with STIR/SHAKEN-enabled partners by June 30, 2021

As discussed above, Comcast has made tremendous progress in implementing the STIR/SHAKEN framework across its network. Indeed, the Commission has recognized Comcast's progress on multiple occasions.⁹ Today, Comcast signs and verifies all calls that both originate and terminate to its own residential and small- and medium-sized business customers. Based on its track record of developing and pioneering the implementation of the STIR/SHAKEN framework and its steadfast commitment to undertaking the efforts and investments necessary to complete network upgrades, Comcast reasonably foresees that, no later than June 30, 2021, it will have completed all necessary network upgrades to its network infrastructure to enable the authentication and verification of caller identification information for all SIP calls exchanged with STIR/SHAKEN-enabled partners and covered by the STIR/SHAKEN standard.¹⁰

⁹ See, e.g., *Call Authentication Trust Anchor*, Report and Order and Further Notice of Proposed Rulemaking, 35 FCC Rcd 3241, 3249-51 ¶¶ 18-20 (2020); see also *Advanced Methods to Target and Eliminate Unlawful Robocalls*, Declaratory Ruling and Third Further Notice of Proposed Rulemaking, 34 FCC Rcd 4876, 4898-99 ¶ 71 (2019).

¹⁰ For any SIP calls not currently covered by the STIR/SHAKEN standard, such as 911/844/N11 calls, Comcast will implement signing and verification as soon as practicable after the relevant standards are in place.